

Replacement Sheet
Sheet 1 of 3
Appl. No. 09/845,157; Filed: May 1, 2001
Dkt No. 0942.5040001/RWE/AWL; Group Unit: 1637
Inventors: Smith et al.
Tel. No.: 202-371-2600
For: Thermostable Reverse Transcriptases and Uses Thereof

ATG ACC CTA AAT ATA GAA GAT GAG CAT CGG CTA CAT GAG ACC TCA AAA GAG CCA GAT GTT MET Ihr Leu Asn Tle Glu Asp Glu His Arg Leu His Glu Thr Ser Lys Glu Pro Asp Val

ICT CTA GGG TCC ACA TGG CTG TCT GAT TIT CCT CAG GCC TGG GCG GAA ACC GGG GGC ATG Ser Leu Gly Ser Thr Trp Leu Ser Asp Phe Pro Gla Ala Trp Ala Glu Thr Gly Gly MET

GGA CIG GCA GTT CGC CAA GCT CCT CTG ATC ATA CCT CTG AAA GCA ACC ICI ACC CCC GTG Gly Leu Ala Val Arg Gln Ala Pro Leu Ite Ite Pro Leu Lys Ala Thr Ser Thr Pro Val

1258
TCC ATA AAA CAA TAC CCC ATG TCA CAA GAA GCC AGA CTG GGG ATC AAG CCC CAC ATA CAG
Ser He Lys Gln Tyr Pro MET Ser Gln Glu Ala Arg Leu Gly He Lys Pro His He Gln

AGA CTG TTG GAC CAG GGA ATA CTG GTA CCC TGC CAG TCC CCC TGG AAC ACG CCC CTG CTA Arg Leu Leu Asp Gla Gly Ile Leu Val Pro Cys Gla Ser Pro Trp Asa Thr Pro Leu Leu

CCC GTT AAG AAA CCA GGG ACT AAT GAT TAT AGG CCT GTC CAG GAT CTG AGA GAA GTC AAC Pro Val Lys Lys Pro Gly Thr Asn Asp Tyr Arg Pro Val Gln Asp Leu Arg Glu Val Asn

AAG CGG GTG GAA GAC ATC CAC CCC ACC GTG CCC AAC CCT TAC AAC CTC TTG AGC GGG CTC Lys Arg Val Glu Asp I le His Pro Thr Val Pro Asn Pro Tyr Asn Leu Leu Ser Gly Leu

CCA CCG TCC CAC CAG TGG TAC ACT GTG CTT GAT TTA AAG GAT GCC TTT TTC TGC CTG AGA Pro Pro Ser His Gla Trp Tyr Thr Val Leu Asp Leu Lys Asp Ala Phe Phe Cys Leu Arg

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1558

CTC CAC CCC ACC AGT CAG CCT CTC TTC GCC TTT GAG TGG AGA GAT CCA GAG ATG GGA ATC Leu His Pro Thr Ser Gla Pro Leu Phe Ala Phe Glu Trp Arg Asp Pro Glu MET Gly Ile

1618

ICA GGA CAA TIG ACC TGG ACC AGA CTC CCA CAG GGI TIC AAA AAC AGI CCC ACC CTG TII Ser Gly Gln Leu Thr Trp Thr Arg Leu Pro Gln Gly Phe Lys Asn Ser Pro Thr Leu Phe

1678

GAT GAG GCA CTG CAC AGA GAC CTA GCA GAC TTC CGG ATC CAG CAC CCA GAC TTG ATC CTG Asp Glu Ala Leu His Arg Asp Leu Ala Asp Phe Arg Ile Gla His Pro Asp Leu Ile Leu

738

CTA CAG TAC GTG GAT GAC TTA CTG CTG GCC GCC ACT TCT GAG CTA GAC TGC CAA CAA GGT Leu Gln Tyr Val Asp Asp Leu Leu Leu Ala Ala Thr Ser Glu Leu Asp Cys Gln Gln Gly

1798

ACT CGG GCC CTG TTA CAA ACC CTA GGG AAC CTC GGG TAT CGG GCC TCG GCC AAG AAA GCC Ihr Arg Ala Leu Leu Gln Thr Leu Gly Asn Leu Gly Tyr Arg Ala Ser Ala Lys Lys Ala

1858

CAA ATT IGC CAG AAA CAG GTC AAG TAT CTG GGG TAT CTT CTA AAA GAG GGT CAG AGA TGG GIn Ite Cys GIn Lys GIn Val Lys Tyr Leu Gly Tyr Leu Leu Lys Glu Gly Gin Arg Trp

1918

CTG ACT GAG GCC AGA AAA GAG ACT GTG ATG GGG CAG CCT ACT CCG AAG ACC CCT-CGA CAA Leu Thr Glu Ala Arg Lys Glu Thr Val MET Gly Gln Pro Thr Pro Lys Thr Pro Arg Gln

1978

CTA AGG GAG TTC CTA GGG ACG GCA GGC TTC TGT CGC CTC TGG ATC CCT GGG TTT GCA GAA Leu Arg Glu Phe Leu Gly Thr Ala Gly Phe Cys Arg Leu Trp 1le Pro Gly Phe Ala Glu

2038

ATG GCA GCC CCC TTG TAC CCT CTC ACC AAA ACG GGG ACT CTG TTT AAT 1GG GGC CCA GAC HET Ala Ala Pro Leu Tyr Pro Leu Thr Lys Thr Gly Thr Leu Phe Asn Irp Gly Pro Asp

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CAA CAA AAG GCC TAT CAA GAA ATC AAG CAA GCT CTT CTA ACT GCC CCA GCC CTG GGG TTG GIn GIn Lys Ala Tyr Gin Glu Ile Lys Gin Ala Leu Leu Thr Ala Pro Ala Leu Gly Leu

CCA GAI TIG ACT AAG CCC TIT GAA CTC TIT GTC GAC GAG AAG CAG GGC TAC GCC AAA GGT Pro Asp Leu Thr Lys Pro Phe Glu Leu Phe Val Asp Glu Lys Gln Gly Tyr Ala Lys Gly

GTC CTA ACG CAA AAA CTG GGA CCT TGG CGT CGG CCG GTG GCC TAC CTG TCC AAA AAG CTA Val Leu Thr Gln Lys Leu Gly Pro Trp Arg Arg Pro Val Ala Tyr Leu Ser Lys Lys Leu

GAC CCA GTA GCA GCT GGG TGG CCC CCT TGC CTA CGG ATG GTA GCA GCC ATT GCC GTA CTG Asp Pro Val Ala Ala Gly Trp Pro Pro Cys Leu Arg HET Val Ala Ala Ile Ala Val Leu

ACA AAG GAT GCA GGC AAG CTA ACC ATG GGA CAG CCA CTA GTC ATT CTG GCC CCC CAT GCA Thr Lys Asp Ala Gly Lys Leu Thr MET Gly Gln Pro Leu Val Ile Leu Ala Pro His Ala

2398
GTA GAG GCA CTA GTC AAA CAA CCC CCC GAC CGC TGG CTT TCC AAC GCC CGG ATG ACT CAC
Val Glu Ala Leu Val Lys Gln Pro Pro Asp Arg Trp Leu Ser Asn Ala Arg MET Thr His

TAT CAG GCC TTG CTT TTG GAC ACG GAC CGG GTC CAG TTC GGA CCG GTG GTA GCC CTG AAC Tyr Gln Ala Leu Leu Leu Asp Thr Asp Arg Val Gln Phe Gly Pro Val Val Ala Leu Asn

CCG GCT ACG CTG CTC CCA CTG CCT GAG GAA GGG CTG CAA CAC AAC TGC CTT GAT AAT TCC Pro Ala Thr Leu Leu Pro Leu Pro Glu Glu Gly Leu Gln His Asn Cys Leu Asp Asn Ser

2533 CGC TTA ATT AAT TAA Arg Leu Ile Asn

FIG 7C